**Major work of Algebra I – 5/11/12**

**Grade ­­­\_\_9\_\_\_\_**

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| **Major Clusters / Standard**  **Instructional Time: 70%** | **Supporting Clusters / Standard**  **Instructional Time: 20%** | **Additional Clusters / Standard**  **Instructional Time: 10%** |
| Interpreting Functions **(F-IF)**   * Understand the concept of a function and use function notation - .1, .2, .3 * Interpret functions that arise in applications in terms of a context - .4, .5, .6 * Analyze functions using different representations - .7, .8, .9 | Seeing Structure in Expressions **(A-SSE)**   * Interpret the structure of expressions - .1, .2 * Write expressions in equivalent forms to solve problems - .3 | Real Number **(N-RN)**   * Extend the properties of exponents to rational exponents - .1, .2 |
| Building Functions **(F–BF)**   * Build a function that models a relationship between two quantities - .1, .2 * Build new functions from existing functions - .3 | Creating Equations **(A-CED)**   * Create equations that describe numbers or relationships - .1, .2, .3, .4 | Arithmetic with Polynomials and Rational Expressions **(A-APR)**   * Perform arithmetic operations on polynomials - .1 |
| Linear, Quadratic, and Exponential Models **(F-LE)**   * Construct and compare linear and exponential models and solve problems - .1, .2, .3 * Interpret expressions for functions in terms of the situation they model - .5 | Reasoning with Equations/Inequalities **(A-REI)**   * Understand solving equations as a process of reasoning and explain the reasoning - .1 * Solve equations and inequalities in one variable - .3 * Solve systems of equations- .5, .6 * Represent and solve equations and inequalities graphically - .10, .11, .12 | Congruence **(G-C0)**   * Experiment with transformations in the plane - .1 |
|  | Expressing Geometric Properties with Equations **(G-GPE)**   * Use coordinates to prove simple geometric theorems algebraically - .4, .5, .6, .7 | Quantities **(N-Q)**   * Reason quantitatively and use units to solve problems - .1, .2, .3 |
|  | Interpreting Categorical and Quantitative Data **(S-ID)**   * Summarize, represent, and interpret data on a single count or measurement variable - .1, .2, .3 * Summarize, represent, and interpret data on two categorical and quantitative variables - .5, .6 * Interpret linear models - .7, .8, .9 |  |